## EXHIBIT C

## CASE 0:15-md-02666-JNE-DTS Doc. 746-3 Filed 09/12/17 Page 2 of 82

Confidential - Subject to Protective Order

Page 1

## UNITED STATES DISTRICT COURT DISTRICT OF MINNESOTA

In Re:

Bair Hugger Forced Air Warming
Products Liability Litigation

This Document Relates To:

All Actions MDL No. 15-2666 (JNE/FLM)

DEPOSITION OF SAMSUN LAMPOTANG, Ph.D.

VOLUME I, PAGES 1 - 310

AUGUST 11, 2017

(The following is the deposition of SAMSUN LAMPOTANG, Ph.D., taken pursuant to Notice of Taking Deposition, via videotape, at the DoubleTree by Hilton, 2101 Dixie Clipper Drive, in the City of Jacksonville, State of Florida, commencing at approximately 8:35 o'clock a.m., August 11, 2017.)

## CASE 0:15-md-02666-JNE-DTS Doc. 746-3 Filed 09/12/17 Page 3 of 82

```
Page 4
                    PROCEEDINGS
 1
 2
               (Lampotang Exhibit 1 marked for
               identification.)
 3
 4
          (Witness sworn.)
 5
                       SAMSUN LAMPOTANG,
               Called as a witness, being first
 6
 7
               duly sworn, was examined and
               testified as follows:
 8
 9
                          EXAMINATION
10
     BY MS. ZIMMERMAN:
11
          Q.
               Good morning, Dr. Lampotang.
12
               Good morning.
          Α.
13
               My name is Genevieve Zimmerman, we met just
14
     a moment ago. I'm one of the lawyers that has been
15
     appointed by the Court to represent the nearly 3,000
16
     people who have brought claims in -- in this
17
     multidistrict litigation proceeding. We're going to
     go over some kind of ground rule -- ground rules to
18
19
    begin with.
20
               First of all, did I pronounce your name
21
     correctly?
22
          Α.
               Yes.
23
               Dr. Lampotang? And is that what you prefer
          Q.
24
     to be addressed as?
25
               You can call me Sam.
          Α.
```

```
Page 58
     interested in the methodologies on how you reached
 1
 2
     your opinions?
 3
          Α.
               Yes.
 4
               Okay. And -- And that's really so that we
          Q.
 5
     can -- we can test and understand whether your
     methodologies and conclusions are reliable, okay? Do
 6
 7
     you understand that?
 8
          Α.
               Yes.
               Whether they're reasonable and supportable?
          0.
10
          Α.
               Yes.
11
          Q.
               Now you didn't personally do any -- any
     testing in this case; did you?
12
13
          Α.
               No.
               So you didn't do any biological testing in
14
     connection with your work on this case; correct?
15
16
          Α.
               No.
               And you didn't do any filtration testing in
17
          Ο.
     connection with your work on this Bair Hugger case;
18
19
     have you?
20
          Α.
               No.
21
               All right. And you didn't do any particle
          Q.
22
     counting in connection with your work on this matter;
23
     have you?
24
          Α.
               No.
25
               All right. And you haven't done any
          Q.
```

```
Page 59
     compu -- computational fluid dynamics analysis in this
 1
 2
    matter; have you?
 3
          Α.
               Can you clarify what you mean by
     "computational fluid dynamics analysis"?
 4
               Do you know what computational fluid
 5
     dynamics is?
 6
 7
               Yes, I do.
          Α.
 8
          Q. All right.
             I have actually used it.
 9
          Α.
               Yes, you have, from time to time.
10
          Q.
11
               Have you been asked to use computational
     fluid dynamics in this matter?
12
13
          Α.
               No.
               Okay. And so you --
14
          Q.
15
               Pardon me.
16
               Yeah, you -- because I -- I was wondering
          Α.
     what you meant by "analysis." I did -- I did look at
17
18
     the Elghobashi report, which is a CFD analysis.
               Okay. Right.
19
          Q.
               As well as the Memarzadeh.
20
          Α.
21
               Okay. So you looked at Dr. Elghobashi's
          Q.
22
     report and Dr. Memarzadeh's re -- article?
23
          Α.
               Yes, article.
24
               But you haven't personally performed a
25
     computational fluid dynamics analysis in connection
```

```
Page 60
     with this case; have you?
 1
 2
               No, I have not.
          Α.
 3
               Okay. In fact you'd agree that you haven't
          Ο.
 4
     personally done any original testing with respect to
 5
     the Bair Hugger matter at all; is that correct?
 6
          Α.
               Correct.
 7
               So what your -- your report is really kind
          Q.
 8
     of a recitation of critiques that you have with
     respect to various peer-reviewed studies and expert
 9
     reports offered by the plaintiffs in this matter; is
10
11
     that fair?
12
               Can you repeat the question, please?
13
               Sure.
          Ο.
14
               I said: Your report is really a recitation
15
     of critiques that you have with respect to various
16
     peer-reviewed studies and also expert reports offered
     by the plaintiffs in this matter; is that fair?
17
               I think it also includes what I've done, my
18
          Α.
19
     background, my qualifications, the expert report.
20
          Q.
               Yes.
21
               So it's -- there's a little bit more than
22
     what you described.
23
               Okay. And your expert report, there's a
          Q.
     report, there's your -- your curriculum vitae, and
24
25
     there's a lists of materials considered; is that
```

```
Page 61
     correct?
 1
 2
          Α.
               Yes.
 3
          Q.
               Three separate documents? Okay.
               And I guess the question I was getting at is
 4
     -- is really this: You didn't do any original testing
 5
     yourself in offering the opinions that you offered in
 6
 7
     your report; correct?
 8
               I did not do original testing.
          Α.
 9
          Ο.
               Okay. Now with respect to the report --
               (Discussion off the stenographic record.)
10
11
               (Lampotang Exhibit 3 marked for
               identification.)
12
13
               (Discussion off the stenographic
14
               record.)
15
               (Recess taken from 9:52 to 10:00 a.m.)
16
     BY MS. ZIMMERMAN:
17
               Doctor, just before we took a break we
          0.
18
     marked a copy of the report that you prepared and
19
     submitted in connection with this litigation. Is this
     a -- a complete and accurate copy of the report that
20
21
     you provided?
22
               I believe so.
          Α.
23
          Q.
               Okay.
24
               I mean, you gave me the copy, so...
          Α.
25
               All right. And I'll represent to you it's
          Q.
```

```
Page 62
    what we were provided by counsel.
 2
               Did you review this document in preparation
    for your deposition today?
 3
 4
         Α.
              Yes.
             All right. And are there any corrections or
 5
    changes that you wish to make at this time?
 6
7
               I don't know that it's a correction, but it
         Α.
8
    was ambiguous, so the part about the -- can't remember
9
    now, let me see where it is. The SCIP measure.
10
         Q.
              Yep.
11
               So that is -- it's not -- it's
12
    not in force any more.
              You under -- And so we are -- you're
13
14
    referring to the top --
15
               It's towards the top of page 4; is that
16
    right?
17
         Α.
              Yes.
              Surgical Care Improvement Project, and you
18
    mentioned SCIP 10?
19
20
         Α.
              Yes.
              And you understand that the SCIP 10 protocol
21
         Q.
22
    is no longer in place?
23
         A. Correct.
24
             All right. And so that's the correction
25
    that you wish to make?
```

```
Page 63
               That's one.
 1
          Α.
 2
               All right. And so with respect to the SCIP
          Q.
     10, do you just -- what -- what precisely is the
 3
     correction that you intend to make there, that --
 4
               Well that's --
          Α.
 5
               -- just essentially remove that?
 6
          Q.
 7
               It's not really a correction. I just want
          Α.
8
     to clarify the way it's written it's a bit ambiguous.
9
     It may be misconstrued as saying it is in force, --
               Right.
10
          Q.
11
              -- and --
12
               And -- And that's not the case any more;
          Q.
     correct? All right.
13
14
               THE REPORTER: I'm sorry. I did not get an
15
    answer.
16
               The SCIP 10 protocol has been retracted; is
          Q.
     that fair?
17
               Oh, I'm sorry.
18
          Α.
               I didn't answer.
19
20
               I think the court reporter just wanted a
          Q.
     confirmation of that.
21
22
               Okay. Yes.
          Α.
23
               The SCIP 10 has been retracted, okay.
          Q.
24
               Good. I think we have a good record there.
25
               All right. Is there another change that you
```

```
Page 65
               Nothing that comes to mind right now.
 1
          Α.
 2
               Okay. And -- And you spent yesterday
          Q.
 3
     reviewing your report and otherwise preparing for the
     deposition today?
 4
          Α.
               Yes.
 5
 6
          Q.
               Okay. And you identified a couple of errors
 7
     or changes that you wanted to make and you have
     notified me of those; correct?
8
               I've notified who?
 9
          Α.
               Notified me, just now, --
10
          Q.
11
          Α.
               Yes.
12
               -- of the errors or changes you'd like to
          Q.
13
    make.
14
               Yes.
          Α.
15
          Q.
               And you do that because it's important to be
16
     accurate; correct?
17
          Α.
               Yes.
18
               All right. And so you've reviewed your
          Q.
19
     report and you stand by the report with those
     modifications we've just discussed; correct?
20
21
          Α.
               Yes.
22
               Okay. I'm going to ask you to turn to the
          Q.
23
     end of your report, pages 16 and 17. And is this a --
     a complete list of references upon which you rely with
24
25
     respect to the opinions you offer in your report?
```

```
Page 66
               "This" being pages 16 and 17?
 1
          Α.
 2
          Q.
               Yes.
 3
               And so it looks like they're end notes
     beginning at "i" and going through Roman numeral
 4
     "xvi"; is that correct?
 5
               There was this other list.
 6
          Α.
 7
               And we'll get to that in just a minute.
          Q.
8
               So this is -- these are the citations upon
9
     which you rely as supportive of the opinions you offer
     in your report; is that correct?
10
11
          Α.
               Yes.
12
             And this is complete?
          Q.
13
          Α.
               Yes.
14
               All right. And then, in addition --
          Q.
15
               MS. ZIMMERMAN: I'll mark -- Is this
16
    Exhibit 4?
17
               THE REPORTER: Correct.
18
               (Lampotang Exhibit 4 marked for
               identification.)
19
20
     BY MS. ZIMMERMAN:
21
               And Exhibit 4 is -- was also provided to us
          Ο.
22
     in connection with your report.
23
          Α.
               Umm-hmm.
24
               I believe that this is Exhibit B, and these
25
     are the other materials you considered but perhaps did
```

```
Page 91
     notes because I -- when I look at them I had no idea
 2
    what "789" means.
               So again there's more handwritten notes on
          Ο.
     stuff that hasn't been produced?
 4
 5
              But I was intend -- I was intending to give
 6
     it to you. This is just, if you tell me did you
7
     review "2647," --
          Q. Umm-hmm?
 8
          A. -- I would --
10
          Q.
              So you know what the document is.
11
          Α.
              -- I would just say, to the best of my
12
     knowledge I assume I did, but.
13
               So this is just a very quick reminder so
14
    this -- so I knew what -- what those numbers, those
15
    codes mean.
16
               Okay. When did you prepare the handwritten
          Q.
17
    notations on this document?
18
          Α.
               Yesterday.
19
          Q.
              All right.
20
               MS. ZIMMERMAN: Why don't we go ahead and
21
    mark the handwritten version so that we have that for
22
     the record.
23
               That's Exhibit 5, I think?
24
               THE REPORTER: Correct.
25
               (Lampotang Exhibit 5 marked for
```

```
Page 97
     significant difference in core body temperature.
 1
 2
               All right. So the modalities that you and
 3
     your group worked on are effective at cooling the --
     the athletes; is that right?
 4
          Α.
               That is correct.
 5
               All right. And I'm sure that they're very
 6
          Q.
     appreciative of that because they get to be very hot
 7
     in the -- even in Minnesota, in the summer.
 8
 9
               Actually the first team that adopted it was
10
     the Green Bay Packers.
11
          Ο.
               Well in Minnesota we would say that's
    because the Green Bay Packers are weak.
12
13
               (Laughter.)
14
               (Discussion off the stenographic record.)
15
               (Lampotang Exhibit 6 marked for
               identification.)
16
17
     BY MS. ZIMMERMAN:
18
          Q.
               Is this --
19
               Is Exhibit 6 a correct and complete copy of
20
     your curriculum vitae as -- as produced in connection
21
     with your expert report in this matter, doctor?
22
               I believe so. You handed it to me and I
23
     will accept it -- it's what was given to you, yeah.
24
               All right. So you -- you've -- you've
25
     personally done computer modeling in the past; is that
```

Page 114 understanding if Dr. Mont is in fact an infectious 2 disease doctor, and then we got this clarification about whether it's infectious disease doctors or any 3 physician. So that's kind of how we got to where we 5 are. 6 You're not a medical doctor; correct? 7 No, I'm not, but I teach medical doctors. I Α. actually write guidelines for them. 8 9 Yes. And with respect to issues of infectious disease, you would defer to an infectious 10 disease doctor; correct? 11 12 Α. Yes. All right. And you're not an expert in 13 aerobiology; is that correct? 14 15 No, I'm not. Α. 16 All right. And you're not an expert in microbiology; is that correct? 17 No, I'm not. 18 Α. 19 Q. And with respect to issues concerning orthopedic surgery, you'd defer to an orthopedic 20 surgeon on proper practice and procedure; is that 21 22 fair? 23 I would defer to an orthopedic surgeon 24 regarding orthopedic issues.

All right. And you would agree that -- that

25

Q.

```
Page 117
               All right. And how is that different than a
 1
          Q.
 2
     surgical-site infection, if you know?
               It's --
 3
          Α.
               It's deeper, in general.
 4
               Is that the only difference?
 5
          Q.
               Well, as you said, I'm not a medical expert.
 6
          Α.
 7
     I -- I know they are two different types of
     infections, and I know what's -- was in this case was
8
 9
     the -- the joint infections.
               Okay. And at any rate, with respect to the
10
11
     difference between a SSI and a PJI, if there is a
     difference you would defer to an infectious disease
12
     doctor on definitions and that sort of thing; is that
13
14
     fair?
15
          Α.
               Yes.
16
               All right. You'd also defer to them, I
     trust, on the mechanism of how it is that infection
17
18
     came to be. Is that fair?
19
               For the prevention part I think I -- I have
     created some materials, prior to this case, that may
20
     -- that may be relevant.
21
22
              All right. What -- What materials are you
          Q.
23
24
               What materials have you created?
25
               There are at least two, and actually there's
          Α.
```

```
Page 160
               All right. And what about the Belani paper?
 1
 2
     That's not listed either on the list of references or
     on the list of materials you've considered. Why is
 3
     that?
 4
               The -- Those papers, the authors, at the end
 5
     they -- not "at the end."
 6
7
               The authors, as discussed earlier, they
     explained some of the limitations of what they did --
8
9
            So that's not quite my question, though,
     doctor --
10
11
               MS. LEWIS: Well he didn't finish,
12
     Genevieve. At least let him finish what he was
13
     saying.
14
               MS. ZIMMERMAN: No thanks, counsel. I'll
15
     ask the questions here.
16
     BY MS. ZIMMERMAN:
17
               So my questions are: You do not cite
     anywhere on your report of materials that you rely
18
19
     upon, Legg, Dasari Belani, Reed, Leaper, many other
     forced-air warming studies. Likewise, and it seems
20
     from -- from your response to my question before
21
22
     counsel interrupted, you're familiar with these
23
     studies; is that fair? You've read them before?
24
          Α.
               Yes.
25
              All right. So at some point you have been
          Q.
```

```
Page 161
    provided or found the Legg study; is that fair?
 2
          Α.
               Yes.
 3
          Q.
               All right. The Dasari study, you've seen
     that before?
 4
          Α.
             Yes.
 5
          Q. You've read it?
 6
 7
          A. Yes.
8
          Q. It was provided to you?
            I can't remember, but yes, I --
9
          Α.
               All right. Same thing with the Belani
10
          Q.
11
     study. That's something that you've read before;
     correct?
12
         Α.
13
               Yes.
          Q. And you've read the Reed study before;
14
    correct?
15
16
          Α.
               Yes.
17
               And are you aware that -- that 3M -- 3M has
     recently hired as a -- or funded research with respect
18
     to -- to Mr. Reed and the issues around forced-air
19
     warming?
20
21
               What was the question?
          Α.
22
               Are you aware that 3M has -- has, in 2016,
23
    retained and funded Dr. Reed's studies going forward
     with respect to forced-air warming?
24
25
               I was not aware of that.
          Α.
```

```
Page 162
               All right. And the Leaper study, have you
 1
          Q.
 2
     seen the Leaper study?
 3
          Α.
               Yes.
               All right. And none of these studies are
 4
     listed in -- in the references at the end of your
 5
     report; correct?
 6
7
               (Witness reviewing exhibits.)
          Α.
8
          Q. And we'll get to -- we'll get to Exhibit 4
     in just a minute, but --
9
          Α.
               Yeah.
10
11
               -- none of those studies are listed as
     references to your report; correct?
12
13
          Α.
               Yes.
               And -- And none of these studies are listed
14
     on Exhibit 4, the materials you've considered, either;
15
     are they?
16
17
               (Witness reviewing exhibit.) No, but I do
18
    mention the Albrecht study.
19
          Q.
               And are you aware that Dr. Legg has been
20
     deposed in this case? Mr. Legg, I should say.
21
               I'm -- I don't recall. I think I'm -- No, I
22
     don't know.
23
              All right. Do you know whether or not Dr.
24
     Belani has been deposed in this case?
25
          Α.
               I don't know.
```

Page 163 All right. And you -- you have not been 1 2 provided with and have no knowledge until now, maybe, 3 that Mr. Reed has also been deposed in this case; correct? 4 Α. I don't know. 5 All right. Professor Leaper has also been 6 7 deposed in this case. Have you been provided a copy of his deposition? 8 I -- I don't know. I don't think so. 9 All right. And they were all -- there were 10 11 several trips over to the United Kingdom to depose these study authors with respect to studies that they 12 wrote and -- and their methodology and conclusions 13 with respect to forced-air warming. 14 15 You have not been provided any of those 16 depositions in connection with your work on this case; have you? 17 18 I don't believe so. Α. 19 Q. And in fact you don't cite them even as 20 materials that you've considered, despite the fact that you have in fact read them at some point; is that 21 22 fair? 23 What do you mean by "them"? Α. 24 The studies; Legg, Dasari, --Q. 25 Α. Okay.

Page 164 -- Belani, Reed, Leaper. 1 Q. 2 Α. Yes. 3 Q. All right. Those are studies that you've read in the past. 4 5 Α. Yes. All right. And you understand that Dr. 6 Q. 7 McGovern has also been deposed in this case? I was not aware of that. 8 Α. All right. Have you been provided his 9 deposition? I take it "no"? 10 11 Α. I don't believe so. All right. Have you been provided the 12 deposition of Professor Nachtsheim from the University 13 14 of Minnesota? 15 Can you spell the name, please? Α. 16 I'll try. N-A-C-H-S-H-T-E-I-M, I think. Q. He's a professor of statistics. 17 18 No, I don't believe so. Α. 19 Q. All right. Have you been provided the deposition of Robert Gauthier? 20 I don't recall. It's possible, but I -- I 21 Α. 22 don't know. 23 All right. But in any event, there are a 24 number of studies that -- on -- on forced-air warming 25 and Bair Huggers that you have read in the past but

Page 165 have not been disclosed as part of the materials you've considered on this Exhibit 4; correct? 3 Α. Yes. And similarly there's no disclosure either in your report or on the Materials Considered of 5 articles authored by Kurz or Sessler; correct? 6 7 Α. Yes. 8 And do you understand that both Dr. Kurz and 9 Dr. Sessler have been deposed in this case as well; 10 correct? 11 I didn't know Kurz had been deposed. I knew Sessler had been deposed. 12 All right. And have you been provided 13 14 copies of Kurz and Sessler? 15 I was provided a copy of Sessler. Α. All right. And did you read it? 16 Q. 17 Α. Yes. 18 Q. When? I don't remember. 19 Α. But --20 Q. 21 Was that with respect to Walton; do you have 22 any idea? 23 Α. I -- I can't remember. 24 All right. So in any event you've been 25 provided a copy of one of the depositions of Dr.

```
Page 166
     Sessler, we don't know which one, and it doesn't
 1
 2
     appear anywhere on the Materials Considered on Exhibit
     4; correct?
 3
          Α.
               No.
 4
          Q.
             Correct?
 5
 6
          Α.
              Yes.
 7
               Okay. And as you sit here today, you don't
          Q.
8
     know why that is.
9
               It's -- It's material I looked at a long
     time ago, and.
10
11
          Q.
               And they didn't -- they didn't merit
     inclusion on the Materials Considered?
12
               I -- It's --
13
          Α.
               As I said, it's a -- it's an omission. I --
14
15
     I was focusing on the report, and I -- I was
16
     transmitting to counsel what I was reading at the
     time, and I didn't go back and say, well, these are
17
     all the other things I have read, too.
18
19
          Q.
               Okay. But you did cite, in the Materials
     Considered, two orders from Magistrate -- Magistrate
20
21
     Noel, and also from Judge Ericksen, with respect to
22
     VitaHEAT; is that right?
23
          Α.
               Which exhibit?
24
             Page 3 of Exhibit 4.
          Q.
25
          Α.
               Yes.
```

Page 174 for a minute. 1 2 Because this is a yes-or-no question. Q. Can it contaminate it or can it not 3 contaminate it? I'm happy to hear your explanation 4 about why it may or may not after you've answered 5 whether it is -- you agree it's possible. 6 7 MS. LEWIS: Objection, argumentative on how 8 he's to answer a question. He can answer the 9 question the way he believes he needs to answer the question. 10 11 MS. ZIMMERMAN: The question calls for a 12 yes-no answer. 13 MS. LEWIS: Not necessarily. 14 It's not amenable to a yes-no answer. 15 Q. All right. So you're not capable of or not 16 willing to answer it "yes" or "no"? 17 Α. I -- I didn't say I am not capable. I said 18 it's not --19 Q. No. That's what your counsel said. 20 Α. No. I'm -- I'm saying to you it's not 21 amenable, as the transcript shows, to a yes-or-no 22 answer. 23 So your Section 7 in your report talk about

- 24 a number of different sources of dust, heat and gas in
- 25 an operating room; correct?

Page 175 1 Α. Yes. 2 And you say, in the third sentence: some cases, the air blown into the operating room's 3 ambient environment may also contain infectious 4 organisms or droplets from the patient's respiratory 5 system"; correct? 6 7 Α. Yes. 8 So you would agree that air blown in an Q. operating room may contain infectious organisms; 9 correct? 10 11 Α. Yes. And you list a number of different devices 12 in an operating room that may -- may blow air; 13 14 correct? 15 Yes. Α. And you list physiological monitors. That's 16 one; correct? One of the items that you list at the 17 bottom of age 8? 18 19 Α. Yes. You list an anesthesia machine as something 20 Q. that may blow air; correct? 21 22 Α. Yes. 23 You list an x-ray machine as something that Q. 24 may blow air; correct? 25 Α. Yes.

Page 176 You list a CVVH machine as something that 1 Q. 2 may blow air; correct? That's a central venous venous 3 Α. Yes. hemodialysis machine, yes. 4 5 Q. Yes. 6 You list the OR computers as something that 7 may blow heated air into a operating room; correct? 8 Α. Yes. 9 You also list ceiling-hung display monitors as something that may blow air into an operating room; 10 11 correct? 12 Α. Yes. And you go on on the next page to explain 13 that dust inside these kinds of machines can contain 14 15 bacteria; correct? 16 Α. Yes. 17 And all of the machines that you've listed at the bottom of page 8 and the top of page 9, if they 18 19 blow air they can contaminate the sterile field; 2.0 correct? 21 MS. LEWIS: Objection, form. 22 They can contaminate which field? Α. The sterile field. 23 Q. 24 If they blow air with infectious organisms, Α.

25

yes.

```
Page 177
               Right.
 1
          Q.
 2
               And that in -- the sterile field includes
     the surgical site; correct?
 3
 4
          Α.
               Yes.
 5
               MS. LEWIS: Same objection.
               And you agree that the Bair Hugger device
 6
          Q.
 7
     blows air; correct?
 8
          Α.
               Yes.
 9
               Now you go on, towards the bottom of page 9
     you talk about multiple sources of heat besides just
10
11
     the -- the forced-air warming blanket. Do you see
           It's the last full paragraph on page 9?
12
13
               Oh yes. Umm-hmm.
          Α.
               All right. And you -- you provide a number
14
     of examples, including high-intensity surgical lights;
15
     right? As a source of heat?
16
17
          Α.
               Yes.
18
               Also endoscopic lights; right?
          Q.
19
          Α.
               I don't see endoscopic lights in there, but.
20
               So it says, "including but not limited to
          Q.
21
     high intensity surgical lights and endoscopic
22
     lights..."
23
               Oh, I must have a different version then, of
24
     the -- of the report.
25
               MR. ASSAAD: Mark it.
```

Page 182 out of the machine at the end of the hose you may have one measurement; is that correct? 3 Α. Yes. And when you attach the blanket then to that 4 hose will the temperature remain the same coming out 5 of the -- the jets on the bottom of the blanket? 6 7 I have not done that measurement. So you don't know. 8 Q. 9 Α. Yeah. Okay. So the 43-degree setting, is that the 10 Q. 11 temperature that comes out of the machine, or at the 12 distal end of the -- out of the blower itself or the 13 distal end of the hose? If you know. I -- I don't know which -- which temperature 14 15 they're referring to, whether it's at the hose or at the -- at the heater unit. 16 17 Okay. Do you know how many watts come out Ο. of a Bair Hugger? Say the 750. 18 19 Α. Yeah. I've seen a figure of 500 watts mentioned. 20 21 Ο. Where did you see that? 22 I can't remember. 23 Yeah. And did you cite to it in your Q. 24 materials? 25 Yes, I think you do.

Page 183 1 Α. Yes. 2 You list it in your materials, and then you Q. have a citation to "xi," that's a 3M document? 3 No. Α. 4 "No"? Q. 5 6 Α. No. 7 Q. What do you cite to? 8 A. It's "xii." O. Isn't that Memarzadeh? 9 A. Yes. 10 11 Q. So that's the study about the forced-air warmer being on or off for a zero percent deposition 12 of contaminant sources on the patient. 13 My question was about 500 watts. So you 14 15 say, in the sentence before your citation to 16 Memarzadeh, "there's 500 watts heat dissipation from a forced air warming device," and you cite to "xi." Is 17 18 that correct? 19 Α. Yes. That's what it shows on the report. 20 Q. Okay. I'm not sure whether the references got 21 22 crossed, but -- Oh. Yeah. I think the 500 was from 23 Memarzadeh. 24 Okay. So this "xi" reference at the end is 25 incorrect?

```
Page 184
              Because it just has a number, I cannot tell
 1
    you one way or another. So if you produce the actual
 2
    document I may be able to tell you whether it's -- it
 3
    too, is correct.
 4
              Well I can represent to you that one of the
 5
    questions I had was why were you citing to this,
 6
7
    because it doesn't support what --
8
              Then it's a -- it's a typographical error.
         Α.
9
         Ο.
            Okay.
              I think this was meant to be "xii,"
10
11
    Memarzadeh.
              So both "xi" and -- so "xi" and "xii" should
12
         Q.
    both be citing to Memarzadeh?
13
            Correct. I believe so, --
14
         Α.
15
         Q. All right.
              -- yes. Without having seen what "7132"
16
         Α.
17
    refers to.
              I don't have a paper copy of this, but
18
19
    3MBH00007132 [handing laptop to the witness] you can
    see the Bates label up on the right-hand --
20
21
         Α.
             Umm-hmm.
22
         Q. -- side.
23
              I'm sure counsel can --
24
         A. Yeah.
25
              -- verify that's the number.
         Q.
```

```
Page 185
 1
               Yeah.
          Α.
 2
               This particular document doesn't say
          Q.
     anything about 500 watts of heat dissipation; does it?
 3
          Α.
               That's --
 4
               This is one page?
 5
 6
          Q.
               Yes.
 7
              (Witness reviewing laptop.)
          Α.
               So that citation is another error; correct?
 8
          Q.
 9
          Α.
               Yes.
10
               All right. Assuming that the 500 watts is
          Q.
11
     correct for a Bair Hugger device, do you know how many
12
     BTUs that is?
13
               I can make the calculation. I don't have
14
     the conversion table in front of me.
15
               Well you'd agree that you -- that someone
          Q.
16
     who's studying the impact of any particular device in
17
     the operating room needs to account for the heat
18
     dissipated from the various devices in order to
19
     understand that impact; correct?
20
          Α.
               Please repeat the question.
21
               I will try.
          Q.
22
               Someone who's studying the impact of a
23
     particular device in the operating room needs to
24
     account for the heat dissipated from various devices
25
     in the operating room in order to understand the
```

```
Page 188
               So are the -- are the patients losing heat
 1
 2
    because the operating room is cold, or because --
     because of the redistribution of heat as a result of
 3
     anesthesia?
 4
          Α.
               There are --
 5
               There are multiple mechanisms of -- of heat,
 6
     so anesthesia is one of them. There's also exposure
 7
     of the internal organs if there is an open incision.
8
9
               So getting back to you cite to Memarzadeh
     talking about a computational fluid dynamics model and
10
11
    particle-tracking methodology.
12
               Do you see that part in the last full
    paragraph on page 9?
13
14
               Page 9.
          Α.
15
               Yes.
          Q.
16
             Memarzadeh?
          Α.
17
               Yes.
          Q.
18
               I don't see that. On page 9?
          Α.
19
          Q.
               So you say: "In one study" -- The last full
    paragraph on page 9. You're on the right page. The
20
     last --
21
22
               So the last full paragraph.
          Α.
23
               Yes. "In one study" --
          Q.
24
          Α.
               Yes.
25
               -- "employing computational fluid
          Q.
```

Page 189 dynamics" --1 2 Α. Yes, umm-hmm. -- "and particle-tracking methodology, the 3 total heat emission from these sources, as well as the 4 patient, accounted for more than four times the 500 5 watts heat dissipation from a forced air warming 6 device." 7 8 You'd agree, to have an appropriate model 9 each of these potential sources of heat needs to be included in the model; correct? 10 11 Α. Yes. 12 With respect to Memarzadeh, did you review the entire study? 13 14 Α. I believe so. 15 Q. All right. Because there's also a letter to the edit -- a letter to the editor. 16 17 Α. Yes. Have you read that? 18 Q. 19 Α. So let me check. (Witness reviewing exhibit.) Yes, because that's -- that's what I -- I 20 -- It's the letter to the editor, Journal of Hospital 21 22 Infection. 23 Q. Right. 24 So you cite to the letter to the editor, not 25 to his actual study. Fair?

Page 190 I also read the study, so I think -- it's --1 2 it's a long time ago. I think the 500 was in the --3 the study. Q. Is it your testimony, as you sit here today, 4 5 that you -- that this citation is to the study itself? If you put the two documents in front of me 6 7 I can tell you which one it is. I --8 Well what you cite in "xii" is Memarzadeh, Q. 9 "Active warming systems to maintain perioperative normothermia in hip replacement surgery. Letters to 10 11 the Editor - Journal of Hospital Infection." Does that help refresh your recollection as 12 to whether this is a letter to the editor or the 13 14 actual study itself? 15 Α. Well clearly this is the letter to the 16 editor you had asked me, that is why I went back to 17 the reference to see whether it was the letter to the 18 editor. 19 What I am saying, sitting here now without 20 having the study and the letter to the editor, I cannot say either way whether the 500 watts came from 21 22 the letter to the editor or the study. 23 Okay. And is it your belief, as you sit Q. here, that you have seen Memarzadeh's study? 24 25 Α. Yes.

	Page 191
1	Q. But it's not cited on Exhibit 4 or at the
2	end of your report either; is it?
3	A. (Witness reviewing exhibits.) No.
4	Q. Do you know whether or not Dr. Memarzadeh's
5	study is published or unpublished?
6	A. I don't know.
7	Q. Do you know how many Do you know how many
8	
9	Well you talked about you could calculate
10	the number of BTUs from a Bair Hugger assuming it was
11	500 watts; is that right?
12	A. Yes.
13	Q. Do you know how many BTUs a patient in an
14	operating room may generate?
15	A. Not off Not off the top of my head.
16	That's easily available.
17	Q. All right. Would 160 BTUs an hour sound
18	like an appropriate approximation? If you know.
19	A. I don't know. I would have to look at, you
20	know I usually don't work with BTUs.
21	Q. Okay. Do you know how many BTUs an hour a
22	surgical team might generate? Assume a surgical team
23	of four.
24	A. I don't know, but I can find out.
25	Q. Do you know how many BTUs the surgical

Page 192 lights generate? 1 2 Α. It's -- I -- I don't know off the top of my head, but it's -- it's something I can find, and I --3 if I recollect, I believe Memarzadeh touched on that 4 because when I say it's four times, what I remember 5 doing was I added all the different sources of heat 6 7 that he had enumerated. 8 But you'd agree that the anesthesia Q. 9 equipment may also be generating, it's a source of heat in the operating room; right? 10 11 Α. Yes. And as you sit here today, do you have any 12 idea how many BTUs per hour the anesthesia equipment 13 14 would gen -- produce in an operating room? 15 It's -- It's something that can be measured. Α. 16 I didn't measure it. 17 All right. And you'd agree --0. And I believe Memarzadeh did give that 18 Α. 19 number. 20 Q. Okay. But I'm going from memory. I may be wrong. 21 Α. 22 All right. And you'd agree that the LCD Q. 23 monitors that are typically in an operating room are also a potential source of heat; correct? 24

25 Α. Yes.

Page 193

- 1 Q. And as you sit here, you don't have any idea
- 2 how much heat they're generating per hour; do you?
- 3 A. I've -- I -- I cannot put a number to it as
- 4 I'm sitting here, but I can find out, and I -- I know
- 5 they generate heat because I've worked with them.
- 6 Q. All right. And the same can be said for
- 7 surgical lights and overhead lighting, that they are
- 8 -- both surgical lights and overhead lighting are
- 9 sources of heat in an operating room. You'd agree
- 10 with that?
- 11 A. Yes.
- 12 Q. All right. And, as you sit here today, you
- 13 -- I presume you don't know how many watts or BTUs the
- 14 surgical lights or the overhead lights contribute to
- 15 the operating room per hour; do you?
- 16 A. Again, this is -- this is knowledge that I
- 17 can acquire -- not "acquire." I already have it, but
- 18 I don't remember off the top of my head. So it is --
- 19 a lot of it is in the Memarzadeh study.
- 20 Q. Okay. And Memarzadeh is in fact the only
- 21 citation that you provide with respect to heat -- heat
- 22 dissipated in the operating room; right? There's the
- 23 cite number "xi," which was an error, and then cite
- 24 number "xii" is to Memarzadeh's letter to the editor;
- 25 correct?

Page 194 1 Α. Yes. 2 Is it your testimony that the information 3 about heat generated and dissipated is in -- is included as part of the letter to the editor cited at 4 number "xii"? 5 6 Α. Without looking at the letter to the editor 7 I cannot make any statement. 8 Q. Okay. 9 I'm sorry. But at any rate, you'd agreed that it's 10 important to know all the different heat sources to 11 understand their respective impact on the operating 12 room; correct? 13 14 Yes. Some heat sources may be insignificant, and if that's determined to be the case 15 16 then they could be considered negligible and not factored in, and --17 18 But you'd agree that it's important to know 19 the objective quantifiable amount of heat generated in order to decide whether it's negligible or not. Fair? 20 Yes. And it also depends on the location, 21 Α. 22 yes. 23 Right. Q. 24 And all of that is something that is

objectively measurable; correct?

25

Page 195 1 Yes. Α. 2 All right. Now you'd agree that no Q. operating room has true laminar flow; correct? 3 4 Α. Yes. And so you'd agree that when you model 5 airflow in an operating room, turbulence must be 6 7 considered; correct? 8 Can you repeat the question, please? Α. 9 Ο. Yes. So you'd agree when -- when airflow inside 10 11 of an operating room is modeled, turbulence must be considered; correct? 12 13 If in -- in -- in the model that's being 14 considered there is known to be turbulence, yes. 15 And you'd agree that all operating rooms are Q. 16 going to be turbulent flows; correct? 17 There are some operating rooms that are 18 described as laminar flow, but they may not live up to 19 that description. And you agree and understand as a mechanical 20 Q. 21 engineer that true laminar flow is just not possible 22 in an operating room; correct? 23 Α. It is very difficult. 24 All right. And because of that, turbulence 25 must be considered; fair?

```
Page 199
               All right. Is that something that the
 1
     resident typically does, or the nurse, or who, if you
 3
     know?
               Actually, thank you for making that
 4
     correction. That was not a resident, that was a
 5
    nurse. A Certified Registered Nurse Anesthetist, to
 6
    be exact. Nurses don't -- don't do anesthesia. CRNA.
 7
8
          Q.
               Yes.
9
               Do you know Dr. Memarzadeh, by the way?
10
          Α.
               No.
11
          Q.
               And you've looked at the letter to the
12
     editor at least; right?
13
          Α.
               Yes.
14
            And -- And you --
          Q.
15
          A. Actually I looked at the study, too.
16
               You looked at the study, too, even though
          Q.
     it's not on Exhibit 4.
17
18
          Α.
               Yes.
19
          Q.
               And so you're aware, then, from looking at
20
     -- at his study, that -- that even Dr. Memarzadeh
     found that the 505 disrupted the airflow in the
21
22
     operating room; correct?
23
               MS. LEWIS: Objection, form.
24
          Α.
               I -- I don't -- I don't recall that, and
25
     it's been a long time since I -- I read it.
```

	- Page 200
1	Q. All right. Do you know, as you sit here
2	today, whether Dr. Memarzadeh used RANS or LES in his
3	model?
4	A. I don't recall.
5	Q. Do you know what the difference is between
6	the two?
7	A. Superficially. I saw that in the Elghobashi
8	report, and and in the Elghobashi deposition.
9	Q. All right. And And what is your
10	understanding of the difference between RANS and LES?
11	A. Well they are two different methodolo
12	methodologies, and So as I said, it's superficial,
13	and there was the you know, I I don't what I
14	mean by that is I don't present myself as an expert in
15	computational fluid dynamics.
16	Q. Okay. And you would defer to an expert in
17	computational fluid dynamics to explain the difference
18	between RANS and LES and when one approach is better
19	than another. Fair?
20	A. Yes.
21	(Discussion off the stenographic record.)
22	(Recess taken from 1:47 to 1:54 p.m.)
23	BY MS. ZIMMERMAN:
24	Q. Doctor, you've spent most of, if not all of
25	your professional life working on issues involving

Page 213 MS. LEWIS: Objection, form. 1 2 I believe I already answered. I said it is Α. possible, but in some -- in some instances you may not 3 get -- because I'm assuming what you mean by "buoyant 4 force" is the air will rise. 5 Yes. And there may be some instances where 6 7 other parts of the environment work to counteract those buoyant forces. Fair? 8 9 Α. That's correct. Okay. I want to turn to the very first 10 11 opinion that you offer on page 3 in your report. You say that: "The Bair Hugger is a forced air warming 12 device, it is a reasonable, safe, easy to 13 use...efficacious device." 14 15 What is the basis for your opinion that it 16 is a safe device for use in orthopedic implant 17 surgery? There has been no case that I'm aware of 18 19 where the Bair Hugger has been directly linked as a cause of an infection. 20 21 Ο. And that's the basis for your assertion that 22 it's safe? 23 That's one. The -- The filter is effective Α. in addressing capture of the organisms that are 24 25 relevant to infection.

Page 214 Any other --1 Q. 2 Any other basis for your claim that this machine is safe for use in orthopedic implant surgery? 3 Yes. Because when you have a -- a new 4 Α. device you look -- initially you do your Phase I, 5 Phase II, Phase III clinical trials. 6 7 You understand there were no clinical trials Q. in this; correct? 8 Well I was trying to explain another basis 9 for saying it's safe. 10 11 And then after the clinical trials are over you get into what's called post-market surveillance 12 where we look at how does this product, after the 13 clinical trials, so you're right, behave when used 14 15 over time. And the Bair Hugger has a long track 16 record of being safe. There were -- There is that incident with Moon where there was a fire. 17 18 So I'm going to -- I'm going to stop you 19 there because to the extent that you have started your answer by saying anything about clinical trials, you 20 21 do understand there were no clinical trials with 22 respect to the Bair Hugger; correct? I don't -- I don't --23 Α. 24 I don't recall one way or another. 25 All right.

Q.

```
Page 215
               I mentioned clinical trials as an example to
 1
          Α.
 2
     set up the post-surveillance context.
               Well you -- you do say, in your -- in your
 3
          Q.
     report, that you reviewed the regulatory submissions;
 4
 5
     right?
               Oh, that's in the "materials considered" on
 6
7
     Exhibit 4. You reviewed the design history file,
8
     correct, for the 505?
9
          Α.
               Yes.
               And also for the 750; right?
10
          Q.
11
          Α.
               Yes.
12
               And also for the -- the 750 redesign history
          Q.
     file; right?
13
14
          Α.
               Yes.
15
          Q.
               So you know, then, from reviewing these
16
     documents, that -- that this Bair Hugger was a -- was
     cleared for marketing through what's called the
17
     Premarket Approval process in the FDA. You know that?
18
19
          Α.
               Yes, that's right.
20
               And you know then that the -- the predicate
          Q.
     product, the pre-1976 Food and Drug Cosmetic Act
21
22
     Amendment that Bair Hugger relates to is the Sweetland
23
     Bed Warmer manufactured beginning in 1937 to warm
     surgical or hospital beds and to dry casts; right?
24
25
               I recall seeing something like that, yes.
          Α.
```

Page 216 And you've seen the hand-drawn schematics 1 2 for the -- this product manufactured before the start of World War II? 3 I don't recall that. 4 Α. Okay. And do you know, then, that -- that 5 the original 200 series of the Bair Hugger was not for 6 7 use in an operating room? 8 I recall seeing that, yes. Α. 9 And similarly do you recall, or have you been provided by counsel, previous warnings about the 10 risk of airborne contamination in connection with the 11 use of the 200 series Bair Hugger? 12 Can you repeat your question, please? 13 14 I'll try. Q. 15 Have you been provided by counsel, or found 16 during your own independent research, the warnings 17 contained on the Bair Hugger 200 series? I don't recall. 18 Α. 19 Q. All right. So you don't know that that 20 device was specifically warned not to be used in an operating room? 21 22 I don't recall. 23 All right. And you don't, as you sit here Q. today, don't recall that there was a warning about the 24

risk of airborne contamination in certain instances on

25

```
Page 217
     that -- on that device?
 1
 2
               Was that the --
          Α.
               MS. LEWIS: Objection, form.
 3
          Α.
               Was that the exact word for the warning?
 4
 5
               (Lampotang Exhibit 7 marked for
               identification.)
 6
7
     BY MS. ZIMMERMAN:
8
               I'll represent to you that this is a
          Q.
     photograph of the outside of the 200 series of the
9
     Bair Hugger, and you'll see at the bottom it says:
10
11
     "CAUTION: THIS MACHINE NOT INTENDED FOR USE IN THE
12
     OPERATING ROOM."
13
               Do you see that?
14
          Α.
               Yes.
15
               And is this the first time that you've seen
          Q.
     any of the labels for the 200 series?
16
17
               I can't -- I --
          Α.
18
               I don't know. I could have seen it before
19
     when I was in the operating room years ago.
               All right. Well hopefully you wouldn't have
20
          Q.
21
     seen this one in the operating room, right, since it
22
     says not for -- intended -- not intended for use in
23
     the operating room?
24
               The -- The environment has changed a lot,
          Α.
     clinical environment.
25
```

Page 218

- 1 Q. And I appreciate that that's true, doctor,
- 2 but I don't have a question pending about how the
- 3 environment has changed. I just asked if --
- 4 You haven't seen --
- 5 A. What I'm trying to say in response to your
- 6 question, it's not -- because it says it's not
- 7 intended for use in the operating room that it implies
- 8 I would never have seen it.
- 9 Q. Okay.
- 10 A. It is possible people were doing it off
- 11 label, especially at an academic health center.
- 12 Q. And at any rate, because you've seen the --
- 13 you've seen the -- the documents with respect to the
- 14 design history file, you've seen some of the warnings
- 15 about the 750 -- the 750 and 505; correct?
- 16 A. Yes.
- 17 Q. All right. And you know that those -- those
- 18 machines are used in an operating room; correct?
- 19 A. Yes.
- 20 Q. But also that they relate back and they used
- 21 this 200 series product as the predicate product. You
- 22 understand that?
- 23 A. That's likely. I don't have direct
- 24 knowledge of it, but that would seem to be the likely
- 25 path.

Page 219 And as you were evaluating materials 1 2 provided to you to offer commentary about the appropriateness of the warnings contained, did you see 3 warnings for the 700 ser -- the 700 and 750 series 4 5 Bair Hugger? Α. 6 Yes. 7 All right. Did you see the warnings for the Q. 8 505? 9 Α. Yes. And were you provided with copies of the 10 11 warnings that were contained on the outside of the 200 series? 12 13 Α. I don't remember. 14 All right. So you haven't -- at least at 15 this point you don't remember whether or not you saw a 16 warning about the possibility of airborne contamination, that it should be considered if 17 18 patients with infected wounds are treated with the 19 Bair Hugger? 20 MS. LEWIS: Objection, form. 21 That was a long question. Could you please Α. 22 repeat it? 23 Q. Right. 24 You, as you sit here today, have no memory 25 one way or the other about whether you were -- you

Page 220 have seen the warnings contained on the 200 series 1 2 machine; is that fair? Yeah. I cannot remember whether I did or 3 Α. did not. 4 All right. So you don't have any specific 5 memory of warning number 5, the possibility of 6 7 airborne contamination should be considered if patients with infected wounds are treated with the 8 9 Bair Hugger? Is that the first time you've heard that before? 10 11 MS. LEWIS: Objection, form. A. I -- I can't recall. 12 13 All right. Does that impact --Ο. Well let me ask you this: Does it seem fair 14 that the possibility of airborne contamination must be 15 known if it's warned about? 16 17 MS. LEWIS: Objection, form. You can't warn about something you don't 18 Q. 19 know about; right? Well when you say "known," do you mean that 20 Α. it happened, or do you mean that it's a -- it's a --21 22 it's a possibility, --23 Q. It's a known --24 A. -- however remote? 25 It's a known possibility, which is why it's Q.

Page 221 on the warning. 1 2 MS. LEWIS: Same objection. Well I think sometimes the warnings are 3 Α. provided as -- as a safety mechanism to -- to be on 4 5 the safe side. And in fact doctors and healthcare providers 6 Q. 7 rely on product manufacturers to provide appropriate 8 warnings about the use of drugs and devices; correct? 9 The question again, please? I said: And in fact doctors and healthcare 10 11 providers rely on product manufacturers to provide appropriate warnings about the use of drugs and 12 medical devices; correct? 13 They do, and sometimes they overrule them, 14 15 but yes. 16 All right. And that's because safety is Q. important; right? 17 18 Safety is important, efficacy is also 19 important, and sometimes -- I've seen a lot of things, like the manufacturers say you should not modify it, I 20 21 see my colleagues modify equipment all the time 22 because --23 And I understand, doctor. There -- You probably see a lot in supervising and interacting with 24 25 various healthcare providers, but the question is

Page 222 about the warnings that you have seen and been 1 2 provided by counsel, and how those may potentially 3 impact the opinions that you have offered in this case about known risks associated with this product and the 4 adequacy of warnings. 5 Do you have any basis to support your 6 7 statement that Bair Hugger is efficacious to reduce periprosthetic joint infection? 8 Did I write this in the -- I -- I --9 Did I write these words verbatim? 10 11 Q. Well the issues in this case are about use 12 of this particular product in orthopedic surgery; 13 right? 14 Α. Yes. 15 Q. Okay. And --16 Oh, you're talking of normothermia. Α. 17 No. 0. Okay. I'm sorry. 18 Α. 19 Q. Not just normothermia. I'm asking, and the question was 20 specifically: "Do you have any basis to support your 21 22 statement that Bair Hugger is efficacious to reduce 23 periprosthetic joint infection?" 24 The -- The Kurz study is one of them. Α. 25 So that's one of the -- that's one of your Ο.

```
Page 223
 1
 2
               That's something that you rely on for that
 3
     statement?
          Α.
               Yes.
 4
          Ο.
               But of course that's not cited in your
 5
 6
     paper.
 7
               I am sorry if it's not.
          Α.
             Anything else?
 8
          Q.
               Sitting here, I can't recall. I'm sorry.
          Α.
               All right. Turning to the second --
10
          Q.
11
               Turning the page, I guess, it's a
12
     continuation of your first opinion, top of page 4.
     You cite to the Center for Disease Control updated
13
     guidelines, and talk about the importance of
14
15
    maintaining normothermia.
16
               Does the CDC make a recommendation one way
17
     or another about whether normothermia must be achieved
18
     through preoperative or intraoperative warming?
               In this document, or in general?
19
          Α.
20
               In the document that you cited to.
          Q.
21
               I believe they didn't specify the route, the
          Α.
22
    method.
23
               All right. And while we're talking about
          Q.
24
     that, what are the methods for maintaining
25
     normothermia?
```

Page 226 Okay. And from an anesthesia -- an 1 2 anesthesia perspective, would you agree that it doesn't matter which modality is used to achieve 3 normothermia so long as normo -- normothermia is 4 achieved? 5 6 MS. LEWIS: Objection, form. 7 From an anesthesia modality? Α. 8 From an anesthesia perspective, would you Q. 9 agree it doesn't matter which modality is used to achieve normothermia so long as normothermia is 10 11 achieved? Same objection. 12 MS. LEWIS: There is an element of time involved. 13 14 you achieve normothermia, but towards the end of the case and the patient has been shivering, that would 15 16 not be a good situation. So you do want to have a 17 rapid transient phase where you achieve normothermia and reach a, as fast possible, steady state in -- in 18 19 patient temperature. 20 Q. All right. But you're not, sitting here today or in your work at a hospital, advocating for --21 22 for a particular brand of patient warming, you care 23 about the patient being normothermic. Is that fair? 24 Within -- Within the parameters of the Α. 25 clinical environment, so in our University, and that's

Page 227

- 1 what I'm experienced with, we use the Bair Hugger.
- 2 And a lot of our cases now are getting shorter and
- 3 shorter, and -- and being able to get to normothermia
- 4 quickly is -- is clinically relevant and indicated.
- 5 Q. All right. And in preparing for this case
- 6 or perhaps in your practice, are you aware that there
- 7 are studies that say that forced-air warming is not
- 8 effective for the first hour?
- 9 A. I believe I've seen something like that,
- 10 yes.
- 11 Q. Okay.
- 12 A. I've also seen other studies that say it's
- 13 -- it's quicker to get the patient to normothermia
- 14 than other methods.
- 15 Q. Would you agree that normothermia and the
- 16 study of normothermia has been essentially Dr.
- 17 Sessler's life work?
- 18 A. He's done a lot of publication in that
- 19 field, yes.
- 20 Q. And publication and independent research as
- 21 well; correct?
- 22 A. Yes.
- Q. And you believe he's an expert on issues
- 24 related to normothermia?
- 25 A. Yes.

Page 231 that then, based on the studies it -- it says there is 1 2 this possibility, but some of the studies also in the 3 conclusion or discussion section acknowledge that there are limitations to how those studies could or 4 should be interpreted. 5 Which are those studies? 6 Q. 7 And if you want to flip back to the end of your report, you can just tell me which ones you're 8 9 talking about. I -- I think Belani is one. It's difficult 10 11 for me to remember all of these from the top of my 12 head. 13 Right. But you have your references at the 14 end of the report right in front of you, and also the 15 Materials Considered on Exhibit 4; right? 16 Yeah, but I don't have -- I don't believe I Α. 17 brought Belani or ... 18 Yeah. So there's -- But there's -- So --Q. 19 The end of your first opinion in this report you talk about essentially balancing risk between 20 certain warming modalities and forced-air warming; is 21 22 that right? "Other warming modalities may have risks 23 not present in forced-air warming"? 24 Which -- Which page, please? Α.

Immediately prior to number 2.

25

Page 4.

Q.

Page 232 last sentence. 1 2 Α. Yes. 3 Q. So in order to -- to conclude "other warming modalities may have risks not present in forced-air 4 warming," you'd agree with me you need to know what 5 the risks are that are associated with forced-air 6 7 warming. Fair? 8 Α. Yes. Okay. And you talked about the practice of 9 hosing and potentially of burns. And then you said 10 11 that there are some studies that may use, "surrogates" was your word, they use surrogates and say there is a 12 possibility of an increased risk of infection. 13 that right? 14 15 MS. LEWIS: Objection, form. So which studies are those? 16 0. Albrecht, I believe, and -- If I had the 17 Α. studies in front of me I could tell you. I -- I --18 19 Q. You have your citations in front of you, and I don't know if --20 21 I think Albrecht, Reed. Α. 22 So Albrecht, Reed. Q. 23 Α. Belani. 24 Q. Right, Belani. 25 Dasari maybe. Α.

```
Page 233
               Dasari, Legg, Leaper. Those all sound
 1
          Q.
 2
     familiar?
 3
          Α.
               Yes.
             And these are the ones we talked about
 4
    before that are not in your list of materials
 5
     considered or on the list of citations at the end of
 6
     your report; right?
 7
 8
          Α.
               Yes.
 9
          Ο.
               What --
               What are the risks, as you understand them,
10
    present in non-forced-air warming technologies?
12
          Α.
               In the case of the electric heating
    blanket --
13
          Q. Right, the conductive blankets like VitaHEAT
14
     and HotDog, for example.
15
               Right. You could -- You could get a -- If
16
          Α.
17
     the electrical element is exposed, there is a risk of
     -- of a short-circuit.
18
19
          Q.
               And do you have evidence of that, or are you
20
     just guessing that that could be a problem?
               I don't have evidence. The evidence may be
21
22
     out there, but it --
23
          Q. But as you sit here today you're not
     pointing to, like, a case report or something about
24
25
     dangers associated with VitaHEAT or HotDog.
```

Page 234 No. I cannot point to anything specific. 1 Α. 2 All right. Q. 3 Α. Yeah. Do you know of any other risks that may be 4 Q. present in these conductive-warming modalities? 5 There is a potential risk for... 6 Α. 7 I'm not sure whether the -- the electric blanket is reused or disposable. 8 9 Ο. All right. So if it -- if it is reused, then that's --10 there's an infection risk there from -- from reusing 11 it. 12 But as you sit here right now you don't know 13 14 if it's a single-use item or a reusable; is that 15 right? 16 Yeah. I was considering mostly forced-air Α. 17 warming, so. Well but if we're talking about conductive 18 19 modalities, right, like the VitaHEAT and the HotDog, I'm just trying to understand, when you say that these 20 other warming modalities may have risks not present in 21 22 forced-air warming, what are those risks. 23 So in conductive warming you said that there's a possibility for short-circuit, but to your 24 25 knowledge as you sit here there's no evidence you can

Page 235 point to specifically about that; correct? 2 Α. That's correct. 3 Q. All right. And then the next thing you said is if they're multiple-use modalities --Α. Umm-hmm? 5 -- that there's a possibility that there 6 Q. could be infection or contamination risk; right? 7 8 Α. Right. 9 But you don't know, as you sit here, if these are single-use products or multiple-use 10 11 products; correct? 12 Yes, but with the understanding also that even if it's a single use, sometimes it is reused. 13 14 Off label, but it is reused. 15 Okay. But we're going to go and we're going Q. 16 to try to assume accepted standards of medical practice, and that would be a departure from accepted 17 standards of medical practice. Do you think that 18 19 that's fair, if you know? 20 Α. I don't -- I don't know if that's a legal term, "accepted." What I know is I've seen single-use 21 22 product reused. 23 At your hospital? Q. 24 I don't want to go there. 25 I suspect not. Q.

Page 237 That's correct. 1 Α. 2 And you'd expect that the relationship Q. between 3M and your hospital, given the prominence of 3 the University of Florida, is likely significant. 4 Ιs that fair? 5 6 MS. LEWIS: Objection, form. 7 I don't know what you mean by "significant." Α. 8 Okay. You expect that your hospital orders Q. 9 a great many of things from 3M. Fair? MS. LEWIS: Objection, form. 10 11 I -- I'm not in the purchasing department. 12 What I see is the -- So I don't know what they order. What I see is the end result. I see a lot of Bair 13 14 Huggers, I see a lot of Bair Hugger blankets, so I 15 assume somebody ordered it. 16 Does your hospital use Bair Paws as well? Q. 17 Α. Yes, I believe so. All right. Turning to the second opinion 18 Q. 19 you have here, you're talking about your opinion that "Arizant and 3M acted reasonably in designing, 20 developing, and marketing the Bair Hugger," and that's 21 22 a summary of your opinion; is that right? 23 Α. Yes. 24 And you base that on your review of the 25 510(k); is that right?

Page 238 1 Α. Yes. 2 Okay. And I don't see the actual 510(k) itself listed on either the materials -- the 3 references at the end of your report or on the 4 Materials Considered. Is that another omission? 5 6 Α. Yes. I'm sorry. 7 Okay. Do you have any idea why that's Q. 8 missing? 9 Most likely because I reviewed it a long Α. 10 time ago. 11 Q. And then you -- you say you reviewed the design and development history file, as well as other 12 documents related to the design and testing of the 13 14 Bair Hugger. 15 What other testing documents have you looked 16 at? I've looked at the filtration tests. 17 Α. And are those the documents that you 18 19 reference that are attached to -- or exhibits to Mr. Crowder's deposition? 20 21 Α. Some of them, yes. 22 All right. And now at the end of your 23 actual report there's no inter -- there's no reference 24 to internal tests of the Bair Hugger; is there?

Which tests? Which internal tests?

25

Α.

```
Page 239
               I don't know. I'm trying to figure that
 1
          Q.
 2
     out.
 3
          Α.
               Okay.
               So, you know, on page 4 you say you have
 4
     reviewed the design and development history file, as
 5
     well as other documents related to the design and
 6
7
     testing of the Bair Hugger. But there are no -- We've
8
     already established that footnote number 11 is
     incorrect, there's no other internal document that's
9
     listed as a reference in your report. Is that fair?
10
11
               I -- Without looking at it, I can't --
               Well you can look at it.
12
          Q.
13
               If there's something that you can point me
14
     to, I'd be glad to look at it.
15
               (Witness reviewing exhibit.)
          Α.
16
               Your references appear at pages fif -- 16
          Q.
     and 17.
17
18
               And the question was?
          Α.
19
          Q.
               What testing did you review?
20
               I see no internal documents or testing
     referenced on pages 15 and 16.
21
22
               Right. Yea, I don't -- Actually I think Mr.
23
     Assaad gave the 7132, so that's not -- that's not it.
24
          Q.
               Right. Yep.
25
               (Witness reviewing exhibits.)
          Α.
```

Page 240 1 MS. LEWIS: Look at the one with your notes 2 on it, because that would tell you. THE WITNESS: Yes, that's right. (Witness 3 reviewing Exhibit 5.) 4 Yeah, I believe there was one that Winston 5 Tan did. 6 7 Did you see Mr. Tan's deposition, by the Q. 8 way? 9 No. I don't think so. Α. All right. Do you have any idea why that 10 11 wasn't provided to you? No. Well I don't know whether it was -- I 12 don't know. It's -- You're asking me a lot of things 13 14 out of memory. I don't know. 15 Q. All right. And I understand that that can 16 be frustrating, but this is my one chance --17 Α. Right. 18 -- to ask for seven hours what the basis of Q. 19 your opinions is, and where it comes from. 20 Α. Right. 21 And when we don't have a complete list of 22 materials considered, and when there are errors in the 23 citations that limits our ability to ask questions to 24 fully understand your opinions and the basis for 25 those. So what --

```
Page 244
               You've worked on design for a simulation, it
 1
 2
     sounds like; is that right?
 3
          Α.
               No, an actual -- we built an actual
     operating room --
 4
               All right.
 5
          Q.
               -- and actually manage a -- I'm struggling
 6
          Α.
7
     with the word -- it's not a discarded, but an
8
     operating room that was out -- not used, so I -- I now
9
     manage that operating room. It's a real operating
     room, it's not a simulated operating room.
10
11
          Ο.
               Umm-hmm. Is it "outdated" maybe the word,
12
     or?
13
               It was underused would be actually the
          Α.
     proper way to describe it.
14
15
               All right. And are patients -- are
          Q.
16
     operations actually conducted in this?
17
          Α.
               They used to be.
18
               But they're not now?
          Q.
19
          Α.
               Not now.
               All right. And with respect to the hospital
20
          Q.
     operating rooms at the University of Florida, you're
21
22
     not the designer of the HVAC system, for example.
23
          Α.
               No.
24
               All right. Somebody else did that at the
25
     University of Florida.
```

Page 245 I believe it was probably the architect or 1 2 the people -- they probably did it in consult --3 consultation with the physical plant personnel of the hospital, as well as the infection people. 4 5 I have no doubt that there were a lot of 6 voices that would be heard in a meeting like that. 7 But at any rate, you're not one of the 8 people that would be consulted with respect to 9 designing the operating room air supply system at the University of Florida; correct? 10 11 Α. Yes. All right. And you understand, you cite to 12 ASHRAE standard 52.2 from 2012 to offer the opinion 13 that the filter media in the Bair Hugger is -- is 14 reasonable; is that right? 15 16 Α. Yes. 17 Is there anything else that you are relying Q. upon for that opinion? 18 19 Α. The -- The tests. 20 Is there anything else that you're relying Q. 21 on for the opinion that this MERV 14 or the ASHRAE 22 52.2 provide sufficient filtration for medical 23 devices? 24 Yes. Let me see if I --Α.

And which citation are you --

25

Q.

```
Page 246
               I'm trying to pull it up. (Witness
 1
 2
     reviewing documents.)
 3
               It's this one. It's the MERV parameters,
     and it basically says it will catch all bacteria.
 4
              And where is this from?
 5
          Q.
              This is -- I -- It's a table.
 6
         Α.
               MS. LEWIS: It says at the bottom, page
7
     "7." That came --
8
9
               Does it say page 7 at the bottom?
              MS. ZIMMERMAN: It does say page 7 at the
10
11
    bottom.
12
              MS. LEWIS: It came from Kuehn's report.
              MS. ZIMMERMAN: Michael Keen or Thomas
13
14
    Kuehn?
15
              MS. LEWIS: Thomas.
    BY MS. ZIMMERMAN:
16
17
          O. So this is --
              MS. LEWIS: So it was an exhibit to
18
19
    Kuehn -- or page 7 of his report.
20
               MS. ZIMMERMAN: All right.
21
    BY MS. ZIMMERMAN:
22
              And that's not also listed in the citations
          Q.
23
    at the end or the Materials Considered; fair?
24
         A. (Witness reviewing exhibits.) No.
25
         Q. Correct?
```

		<u>-</u>
1		Page 247
	1	A. Yes.
_	2	Q. Yeah.
	3	MS. ZIMMERMAN: I think I better mark this
	4	just so we have it.
	5	(Discussion off the stenographic record.)
	6	(Lampotang Exhibit 8 marked for
	7	identification.)
	8	BY MS. ZIMMERMAN:
	9	Q. All right. So doctor, you have an extensive
	10	CV, I think that we marked that as Exhibit 6. You've
	11	written many, many papers; right?
	12	A. Yes.
	13	Q. And you you would agree that as you're
	14	writing papers it's important that you provide
	15	references; correct?
	16	A. Yes.
	17	Q. And you would agree with me, I hope, that as
	18	we've gone through this deposition today that there
	19	are many, many omissions in terms of things that have
	20	been either relied upon by you or considered by you
	21	that are not in the report. Fair?
	22	MS. LEWIS: Objection, form.
	23	A. Please repeat the question.
	24	Q. As we've gone through this deposition today
	25	we have discovered many omissions in terms of things

Page 248 that you have either relied upon or materials 1 2 considered that are neither in your report, nor on Exhibit -- Exhibit 4; correct? 3 MS. LEWIS: Objection, form. 4 Α. There are --5 6 There are some that I  $\operatorname{--}$  I read that I 7 didn't include. 8 Do you think that that is a -- is good academic practice? 9 MS. LEWIS: Objection, form. 10 11 I -- I was not writing a paper, in my mind, 12 so I didn't apply the same approach that I would use for an academic paper. If I had known you were going 13 to ask me all these questions, I would have made sure 14 15 I was exhaustive in what I listed. 16 Well, and you were provided, by way of Q. 17 example, and we won't get into the details of it, but you were provided the report of Dr. Said Elghobashi; 18 19 correct? 20 Α. Yes. 21 Did it seem, upon your reading of that 22 report, that there were a significant number of 23 references and citations throughout the -- that paper? 24 I don't recall. Α.

Did you review the report of Dr. William

25

Q.

Page 253 Do you mean the specifications for medical 1 2 equipment? What I mean is does ASHRAE standard 52.2 3 Q. apply to medical devices in an operating room? 4 There is a -- a -- It talks about 5 filtration, and -- and some equipment filtration is --6 is relevant. But to answer your question, ASHRAE is 7 about the air handling. 8 9 Ο. So ASHRAE --You agree with me that ASHRAE standard 52.2 10 11 is about air handling; correct? Yes. But in looking at -- at the -- for 12 Α. example, it talks about what kind of bacteria the air 13 handling would trap, and they use the MERV parameter 14 as a metric to say this is what it will trap. And --15 16 And in ASHRAE this table, rather, says that if you use 17 14 you will trap all bacteria. So I understand what MERV does, and what the 18 19 different ratings are. 20 But my question is whether ASHRAE standard 52.2, not the table in front of you, governs medical 21 22 devices. 23 Α. No. 24 Q. Okay. Thank you. 25 In the next paragraph you say that there is

```
Page 258
               Sometimes it's accepted in the literature,
 1
          Q.
 2
     and sometimes it's considered significantly
 3
     underpowered; is that fair?
 4
          Α.
               In some cases, yes.
 5
               Okay. And would you agree that both Moretti
     and Huang are significantly underpowered?
 6
 7
               MS. LEWIS: Objection, form.
               I'm not a statistician so, you know, it's --
 8
          Α.
 9
     it goes back again to the sample of convenience. So I
     don't know whether that's what they did, but --
10
     because I didn't talk to them, but there -- there --
11
12
     there is a -- a practical element, and I run into that
     all the time when I do my studies, where I very often
13
14
     cannot get what I would ideally like as a sample size.
     So that's the reality of doing research and
15
16
     publishing.
17
               I understand that.
          0.
               But given -- given that Huang and Moretti
18
19
     are both -- they're two of the 16 citations to your
20
     report, would you agree it's important to know if they
     are significantly underpowered before you rely upon
21
22
     them?
23
               When a paper is accepted usually there is a
     statis -- a statistical review. I'm not a statistical
24
25
     reviewer. I don't do that. So the implicit
```

Page 259

- 1 assumption is that when a paper is published that the
- 2 reviewers were able to talk about it, were able to --
- 3 to give feedback to the authors.
- 4 Q. But as you were approaching the problem
- 5 here, and the citations that you offered in support of
- 6 your opinions and even the materials that you
- 7 considered, you did not list Belani and Albrecht and
- 8 Reed and Dasari and Legg and Leaper, and it seems --
- 9 it seems a big piece of that is because of what you
- 10 concluded to be limitations in those studies; is that
- 11 fair?
- 12 A. Part of it was just an omission, as we
- 13 already went over.
- Q. Okay. And partly because you think that
- 15 those -- those studies had limitations; right?
- 16 A. Well I think we -- we just went over that
- 17 most studies have limitations, so.
- 18 Q. But you disregard, it seems, the conclusions
- 19 reached by Belani and by Legg and, you know, these
- 20 other study authors, but you didn't disregard the
- 21 conclusions reached by Moretti and Huang, despite the
- 22 limitations to those studies.
- MS. LEWIS: Objection, form.
- 24 Q. Is that a --
- Is that the approach of an objective

```
Page 260
 1
     researcher?
 2
          Α.
               I --
               MS. LEWIS: Objection, argumentative.
 3
               I -- I reviewed those studies, and I am
 4
          Α.
 5
     going to repeat myself. I made an honest mistake in
     what I listed. If I had known this was a issue I
 6
 7
     would have listed everything.
8
               So turning to page 5, you say that it's your
          Q.
     opinion that Arizant and 3M took the high road and
 9
     acted with poise and restraint in its official
10
11
     response to allegations about forced-air warming
     technology, sticking to the science and the facts, and
12
     undertaking additional testing of the Bair Hugger.
13
14
               You go on to say: "I am not aware of any
     misrepresentations of the safety of the Bair Hugger or
15
     forced-air warming by Arizant/3M or any of its
16
     employees."
17
18
               Is that -- Does that remain your opinion
19
     today?
          Α.
20
               Yes.
                     There -- There --
21
               There was some confusion, I believe, about
22
     the filter.
23
               Do you believe it was confusion?
          Q.
24
               Well I don't know. I don't work at 3M, so.
          Α.
25
     But from what I read, then when the -- when that --
```

Page 261 that was realized, it was -- the FDA was informed. 2 Would it surprise you to know that 3M's 3 internal people, in response to customer questions, say, quote, we do not want to disclose the actual 4 filtration level, but it's sub-HEPA, end quote? 5 Does that sound like it's taking the high 6 7 road, to you, doctor? I don't have enough context to reply to that 8 9 question. I'm sorry. (Discussion off the stenographic record.) 10 11 MS. ZIMMERMAN: We can take a break if you 12 like. 13 THE REPORTER: Off the record, please. 14 (Recess taken from 3:24 to 3:32 p.m.) 15 BY MS. ZIMMERMAN: 16 All right, doctor, I appreciate your 17 patience with the ventilation system and a long day, and we'll try to get through this. 18 19 Α. Thank you. 20 Q. Before we took the break we were -- we were -- I was asking you some questions about your opinion 21 22 about Arizant and 3M taking the high road. Have you 23 seen -- Have you been shown any documents about the 24 desire by Arizant and 3M to prevent ECRI from doing

25

their own study?

Page 262 I don't recall. I don't -- I don't know. 1 Α. 2 So you haven't seen any documents that says our first step with ECRI should be preventing them 3 from doing their own testing? You haven't seen any of 4 those documents? 5 No, I didn't see that. 6 Α. 7 You say that you're not aware of any Q. misrepresentations of the safety of the Bair Hugger or 8 9 the forced-air warming unit by Arizant or 3M or any of its employees. 10 11 Have you been shown any of the documents about the desire to represent that the filter was, 12 quote, high efficiency .2 micron, end quote? 13 I think that's what I was referring to when 14 I said there was a mistake, and then the mistake was 15 shared or --16 With the FDA? 17 0. Yeah, with the FDA. 18 Α. 19 Q. Right. And that mistake arose out of a -- an 2.0 inspection done in somewhere around 2009/2010; does 21 22 that sound about right? 23 Α. I don't remember. Okay. And does it sound familiar that 24 25 perhaps they corrected that mistake by Federal Express

```
Page 263
     letter in December of 2016, six years later?
 1
 2
               MS. LEWIS: Objection, form.
               I don't remember. I -- I don't know.
 3
          Α.
     don't have material to respond.
 4
 5
               All right. And have you been shown any of
 6
     the documents evidencing desires by various
 7
     consultants and key opinion leaders for 3M requesting
8
     that additional studies, especially bacterial sampling
 9
     studies, be done with respect to the Bair Hugger?
10
               I'm sorry. It's been a long day.
11
          Ο.
               It has.
12
               Can you repeat the question, please?
13
               Have you been shown any of the documents
14
     evidencing desires by various consultants and key
     opinion leaders for 3M requesting that additional
15
16
     studies, especially bacterial sampling studies, be
17
     done with respect to the Bair Hugger?
18
               I don't recall.
          Α.
19
          Q.
               Do you know, for example, that Dr. Sessler
20
     had been urging additional study be done for many
21
     years?
22
          Α.
               Umm --
23
               You haven't seen those documents?
          Q.
24
               I don't think so.
          Α.
25
               Okay. Are you aware of concerns by
          Q.
```

```
Page 266
     titled "war games"?
 2
          Α.
               It's possible. I -- It's been -- It's been
     a long time ago.
 3
 4
               MS. ZIMMERMAN: And I will mark this as an
 5
     exhibit so you can see it.
               (Lampotang Exhibit 9 marked for
 6
 7
               identification.)
8
     BY MS. ZIMMERMAN:
               Is that a document that you've seen before?
 9
          0.
               (Witness reviewing exhibit.)
10
11
               MS. LEWIS: Do I have one?
12
               MS. ZIMMERMAN: I wasn't going to use it.
13
               And I'll represent to you, doctor, that the
     orange highlighting is my highlighting, it's not
14
15
     highlighting from --
16
               Umm-hmm.
          Α.
17
               -- Arizant or 3M?
          Ο.
18
               Is this a document you've seen before?
19
          Α.
               (Witness reviewing exhibit.) I don't
20
     believe so.
21
               But the document evidences a concern that
22
     somebody might do a real study on forced-air warming
23
     and contamination; is that right?
24
          Α.
               That's what it says, yes.
25
               All right. Do you think documents like this
          Q.
```

```
Page 268
               MS. LEWIS: Objection, form.
 1
 2
               Please repeat the question.
          Α.
 3
               I said, you'd agree with me that whether it
          Q.
     was 3M that took the high road, or Augustine, that the
 4
     viewpoint about who is correct or taking the high road
 5
     may depend on which articles you believe are credible.
 6
 7
     Is that fair?
 8
               There is an element of that, but there's
          Α.
     also an element of, in my 30 years or more, 35 years I
 9
     quess, I can't remember, that I've been in this field
10
11
     I've never received an email like that that basically
     paints a product in negative light, and it -- it's
12
     just something I've never seen, so I -- and part of
13
     saying 3M took the high road is they -- they didn't go
14
15
     to that level.
16
               Have you seen or been provided any of the
17
     marketing materials that 3M has circulated that
     summarize 3M's criticisms of the -- of the various
18
19
     studies, including Albrecht and Reed and Harper and
20
     Dasani and Legg and Leaper and Belani?
21
          Α.
               What is that docu --
22
               Is that a document?
23
          Q.
               Yes.
24
               I don't believe so.
          Α.
25
               All right. And you haven't seen any of the
          Q.
```

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 1
               MS. LEWIS: What do you mean?
 2
               MS. ZIMMERMAN:
                               That you're looking for?
 3
               MS. LEWIS: I'm looking for Bernards.
               MS. ZIMMERMAN: Right. But the copy that
 4
     you're looking for in the Redrope is your copy of the
 5
     article, or the witness's copy?
 6
7
               MS. LEWIS: This is my Redrope, if that's
     what you're asking.
8
9
               MS. ZIMMERMAN: Yeah, that's what I'm
     asking.
10
11
               We have not marked Bernards at this point.
12
               MS. LEWIS:
                           (Handing.)
13
               THE WITNESS:
                             Thank you.
14
     BY MS. ZIMMERMAN:
15
               And can you underline where you see
16
     confirmation that the Bair Hugger was not cleaned?
17
               What I wrote in the report is they
          Α.
     specifically mentioned cleaning, even saying they blew
18
19
     the dust off the CVVH, they -- and they removed the
20
     dust from the ventilator. And as regards the Bair
     Hugger all they said was, we changed the air filter.
21
22
               All right.
          Q.
23
               I'm sorry, the filter.
          Α.
24
               And that is the full basis by which you say
          Q.
25
     "we can assume that the Bair Hugger was not cleaned"?
```

Page 274 1 Α. Yes. All right. Now in your -- in your expert 2 Q. report you are critical of Dr. Jarvis for his citation 3 to, or I guess reliance upon Bernards. That's the 4 only criticism that you include in your report with 5 respect to Dr. Jarvis's report. Is that the sum total 6 7 of your rebuttal of his testimony? 8 I assume that it is the sum total of your 9 criticism of Dr. Jarvis's report, given there is no other detailed rebuttal. Is that fair? 10 11 Α. If you say so, yes. Umm-hmm. 12 And just as I go down a list. So that's Dr. 13 Jarvis. 14 With respect to Dan Koenigshofer, you've 15 been provided a copy of his report? 16 Α. Yes. 17 And you note, towards the bottom of page 13 18 of your report, that's the only place Dan 19 Koenigshofer's name even appears in your report, it says, Table 8, the MERV Efficiency Parameters on page 20 21 12 of the Koenigshofer report states combustion smoke 22 is less than .3 microns and that most smoke is .3 to 123 micron. And then, I would add, in size. 24 Would you agree that's not -- that's not a 25 criticism that you're making of Dr. Koenigshofer's

Page 279 outbreak stopped, end parentheses. And it seems from 2 your report the underscore is your emphasis added; is that right? 3 Yes. I added the emphasis. 4 Α. 5 Have you spoken with the authors of the 6 Bernards study? 7 No, I have not. Α. Okay. And so it is your interpretation, or 8 Q. 9 it's your assumption, based on the reasons we talked about earlier, that the Bair Hugger filter was 10 11 replaced but nothing else on the machine was cleaned; is that right? 12 That's what they -- they -- They were silent 13 14 about cleaning the machine. They didn't say they -they cleaned -- I'm sorry. Let me take that again. 15 16 They didn't say they cleaned the Bair 17 Hugger, they said they cleaned the ventilator and the So I would not understand why they went to 18 19 explicitly say they cleaned two pieces of equipment 20 but would not say that they cleaned the third piece. 21 Q. Okay. 22 They only say that they changed the filter. 23 All right. And you'd agreed with me that Q. you have explained the basis of your assumption, but 24 25 that is your assumption of what the Bernards article

Page 280 authors did; correct? 1 2 Α. That is correct. 3 All right. Q. There is also another companion paper which 4 Α. I believe I quoted. I think it's Van den Broek or 5 6 something. And it may be --7 Yes, it's on page 2 of Exhibit 5. 8 Okay. The epidemiology of multiple Q. 9 Acinetobacter outbreaks in The Netherlands during the period of 1999 through 2001? 10 11 Α. Yes. All right. And it's your understanding that 12 13 that is a companion to the Bernards study? 14 It's not a companion. I believe it Α. 15 describes some of that same outbreak. 16 And so it's your understanding that the 0. 17 authors in Van den Broek communicated or otherwise 18 made the same assumption you did with respect to what 19 was done in the Bernards study? 20 Α. Please repeat the question. 21 Ο. I will try. 22 It's your understanding that the authors in 23 Van den Broek communicated or otherwi -- communicated 24 with the Bernards study people, or otherwise they made 25 the same assumption that you did with respect to what

Page 282 pretty sure. It's -- It's in here, but I 2 can't -- I can't locate it right now. 3 So you think that there's a quote from Van den Broek, but you're not sure where. 4 It's in the report, yes. 5 Well I can't see it, and I won't pretend to 6 Q. have read it more -- it's possible that I've missed 7 it, but I -- there's no citation to it, and with a 8 9 quick review that I just did I don't see it in here. 10 Α. Okay. 11 At any rate, it seems that you and Dr. David 12 have different assumptions about what happened in the Bernards paper; is that correct? With respect to 13 14 cleaning the Bair Hugger. 15 Α. A different interpretation. 16 Yes. And that's your first criticism of Dr. 0. David; is that fair? 17 If that's the first instance in this report, 18 Α. 19 yes. 20 All right. Then the second is on page 11. Q. Again it says "The David report." You see that right 21 22 in the middle of the page? "The David report mentions 23 the Mistral convective forced air warming system that 24 uses HEPA filters"?

25

Α.

Yes.

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	Page 309
1	CERTIFICATE
2	I, Debby J. Campeau, hereby certify that I
3	am qualified as a verbatim shorthand reporter; that I
4	took in stenographic shorthand the testimony of
5	SAMSUN LAMPOTANG, Ph.D. at the time and place
6	aforesaid; and that the foregoing transcript
7	consisting of 308 pages is a true and correct, full
8	and complete transcription of said shorthand notes,
9	to the best of my ability.
10	Dated at Lino Lakes, Minnesota, this 17th
11	day of August, 2017.
12	
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14	
15	DEBBY J. CAMPEAU
16	Notary Public
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